

REMARKS

In accordance with the foregoing, claims 3, 6 and 9 have been amended. Claims 1-10 are pending and under consideration.

Claims 1, 3, 4, 6, 7, 9 and 10 are rejected under 35 U.S.C. § 103 as being obvious over U.S. Patent No. 5,887,964 to Higuchi et al. in view of U.S. Patent No. 5,771,328 to Wortman et al.

As admitted by the Examiner, Higuchi et al. does not disclose light scattering elements and a rough area, the rough area having a roughness less than the light scattering elements, both the light scattering elements and the rough area being provided on an emission face of a guide plate, which receives light at an incidence end face (claims 1 and 4). The Examiner cites Wortman et al. for the claimed light scattering elements and rough area. Applicants previously argued that what the Examiner believes to be light scattering elements and a rough area in Wortman et al. are not formed on a guide plate, as claimed. That is, the light directing film 30 of Wortman et al. corresponds with the prism sheet for Higuchi et al., not the light guide plate 1 of Higuchi et al.

The Examiner asserts that Figs. 3 and 7 of Wortman et al. disclose the rough surface as being provided on a light guide plate. However, the Examiner appears to be clearly wrong. Referring to column 5, line 64 through column 6, line 2 of Wortman et al., the light source 116 used in the Fig. 7 device of Wortman et al. is an electro luminescent panel or a fluorescent back lighting assembly commonly used with laptop computers. In Fig. 7 of Wortman et al., the light source 116, not the light directing film 118 corresponds with the claimed guide plate.

Fig. 3 of Wortman et al. shows small and large elements 36 and 38 provided on a light directing film 30. However, the elements 36 and 38 are nothing but prism elements. They have a prismatic refraction ability and an inner reflection ability but have no light scattering ability. Being large or small expresses this size of the elements 36, 38. However, a largeness/smallness in roughness is quite different from a largeness/smallness in prism element size.

In addition, the light directing film 30 does not correspond with the light guide plate in Higuchi et al. or that claimed. The light directing film 30 does not have an end face or a minor face, which serves as an incidence face. The light directing film 30 receives light through the backside of the film 30. The backside is a major face.

As to Fig. 7 of Wortman et al., this drawing also shows small and large prism elements provided on a light directing film 118. However, the elements have only a prismatic refraction ability and an inner reflection ability, they have substantially no light scattering ability. As is well-known, both "prismatic refraction" and "inner-reflection" are different optical functions as compared with "scattering." Scattering requires an irregularity in redirecting light. In addition, as mentioned before, the "large" and "small" of Wortman et al. correspond with the size of the elements. A largeness/smallness in roughness is quite different from a largeness/smallness with regard to the size of prism elements.

The light directing film 118 shown in Fig. 7 does not correspond with the light guide plate of the invention or Higuchi et al. because the light directing film 118 does not receive light from a minor face (or end face) serving as the incidence face. The light directing film 118 receives light from the light source (an electro luminescent panel) 116 through the backside. The backside is a major face of the film 118.

Even if Wortman et al. and Higuchi et al. were properly combinable, the elements 36 and 38 of Wortman et al. would be incorporated into the prism sheet 4 (see Fig. 1 of the reference) of Higuchi et al. This combination does not produce the invention. The elements 36 and 38 of Wortman et al. would not be incorporated into the light guide plate 1 of Higuchi et al. Wortman et al. provides clear evidence that the light directing films 30, 70 correspond with the prism sheet 4 of Higuchi et al. The embodiment shown in Fig. 8 of Wortman et al. is a surface light source device of a side light type. In this respect, Fig. 8 is more similar to the present invention and to the device disclosed in Higuchi et al. than the other embodiments of Wortman et al. Wortman et al. describes the Fig. 8 embodiment at column 6, lines 17-29 as follows:

FIG. 8 illustrates another useful application of a sheet of light directing film in accordance with the present invention. FIG. 8 is a schematic illustration of a commonly used light guide assembly 150 for use in an optical display. Light guide assembly 150 includes a light source 152, a wedge-shaped light guide 154, a diffusive reflector 156, and a sheet of light directing film 158. In use, light from the light source 152 is directed into light guide 154. Light rays which strike the surface of light guide 154 at greater than the critical angle undergo total internal reflection and are propagated along light guide 154. By contrast, light rays which strike the surface of light guide 154 at less than the critical angle are transmitted and refracted.

Wortman et al. clearly teaches that the light directing film is to be positioned on an emission

side of a light guide. Wortman et al. teaches that the light directing film is not a light guide. Wortman et al. provides elements 36 and 37 on a prism sheet type element, not on a light guide plate. Wortman et al. teaches away from providing elements 36 and 38 on a light guide plate.

The rejected claims patentably distinguish over Higuchi et al. in view of Wortman et al. If the Examiner disagrees, the Examiner is requested to comment on why it would have been obvious to do that which the references teach should not be done. This will assist Applicants in any future appeal.

Claims 1-10 are rejected for obviousness-type double patenting over claims 3, 6 and 9 of U.S. Patent No. 6,339,458 ("the '458 patent"). It is noted that the Examiner refers to Fig. 1 of the '458 patent. On the hand, double patenting rejections relate the claims, not the specification. This rejection is respectfully traversed. Claims 3, 6 and 9 of the '458 patent refer to first and second emission promotion regions which have different light emission promotion abilities. Claims 3, 6 and 9 make no mention of a difference in roughness. Light emission and roughness are different.

Claims 1-10 of the present application refer to light scattering elements which have a roughness. Claims 3, 6 and 9, on the other hand, do not mention light scattering elements and do not mention a light scattering function. Certainly, the Examiner understands that light emission is different from light scattering. Claims 1-10 of the present application refer to a rough area having a roughness degree which is less than that of the light scattering elements. Claims 3, 6 and 9 of the '458 patent make no mention of a rough area.

In addition, as mentioned previously, the '458 patent and the present application do not have the exact same ownership. For these reasons, it is submitted that the obviousness-type double patenting rejection should be withdrawn.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: Sept. 9, 2004

By: Mark J. Henry
Mark J. Henry
Registration No. 36,162

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501